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Remarks on "Spinal Irritation."

BY

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REMARKS ON "SPINAL IRRITATION."[1]

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The term "spinal irritation" should be absolutely and irrevocably banished from medical nomenclature. The pain and tenderness along the spine commonly known by this name have nothing to do with the spinal cord or its membranes or with the spinal column, except that these structures happen to lie beneath the dorsal surface. It were as rational to call the so frequent epigastric tenderness "gastric irritation," or designate as "cardiac irritation" the pain and tenderness often found in the region overlying the apex of the heart.

To those who may be inclined to smile at this rather vigorous denunciation of a tradition now recognized to be a myth and who would say that I cry "wolf" when no such beast could possibly be near, I can only say that the necessity of some remarks of this tenor has been borne in upon me by consultation practise and post-graduate teaching.

To explain that some organic diseases of the spinal cord and its membranes as well as lesions of the vertebræ are attended with pain and tenderness in the back were a work of supererogation. Few would group outspoken cases of this character under spinal irritation; but there is still a tendency, even on the part of prominent and otherwise well informed members of the profession, to consider the pain and sensitiveness along the spine that are so exceedingly frequent in nervous people as a morbid entity, something *sui generis*, or at least a distinct unit in the group of conditions that constitute a case of neurasthenia, hysteria, or hypochondria; or they are considered as an added element—a complication of the case. At any rate it is concluded that there is something wrong, be it functional or organic, in the spinal cord or the spinal column, or in the nerves at this level, or in all three. There are also numerous cases, in my experience principally of traumatic origin, in which the presence of pain and tenderness in the back, often with more or less rigidity and weakness, is itself the only reason for the false conclusion that there must be some grave affection of the nerve structures.

Direct questions as to the nature of such symptoms addressed

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to a number of physicians at different times have elicited a diversity of opinion that would be ludicrous were it not so serious, and consultation of the various authors who mention or describe spinal irritation—from C. Brown of Glasgow, who coined the term in 1828, down to the latest writers—reveals a scarcely less incongruous assortment of supposititious pathologies.

My principal object then in presenting the subject is to insist that so-called spinal irritation is *not* due to congestion or anemia of the spinal cord; to a state of altered nutrition in the cord; to a neurosis of the spinal arteries; to a thickening of the spinal membranes; to exhaustion of the gray matter of the cord; to an affection of the nerve roots or nerve trunks; to thickening or irritation of the vertebræ; to irritation of the spinal ganglia; or to any other permanent condition or process in the back whatsoever.

In registering this protest against an impossible nosology and one that was always gratuitous, I shall support it by calling attention to only one trait of one symptom—namely, a rapid shifting of the tender points. These hyperesthetic spots are sufficiently familiar to every one. Some authors state that they are most frequent over the lower cervical spine, others find them oftener in the dorsal, and others again in the lumbar or lumbo-sacral region. As a matter of fact no point from the external occipital protuberance to the tip of the coccyx is exempt. Sometimes they are directly over the spinous processes, sometimes at the side of them,—it depends almost entirely on accident or the examiner. There may be sensitiveness along the entire spine; then there are places of maximum tenderness.

The sore points are notoriously inconstant in degree of tenderness and in location, but it seems to be not generally known that the patient can locate them only about as accurately as a well person can locate a spot on his back previously touched. Indeed, I have never seen attention called to this fact, although I cannot suppose that it has escaped the scrutiny of all previous observers.

If a normal person be stripped and any given spot on the back be firmly pressed with the finger or the rubber tip of a pencil, after five or ten minutes he will ordinarily be unable to indicate exactly where the spot is; that is, if the examiner start say a foot above or below and approach the spot previously pressed upon by steps as it were, pressing or touching the skin at intervals of about one-half inch, the subject will generally say that the observer has touched the spot designated three-quarters of an inch to two inches before it is reached. Occasionally he will locate it further along, and once in a while of course he will happen to hit it exactly. In other words,

the healthy sensorium, or the normal function of reception and recognition of sensory impressions, is accurate only within certain limits.

Now to pass to the pathological condition under consideration. In any case of so-called spinal irritation the tender point or points are ever present and can as a rule be definitely located, if the examiner exercise a little pains. Even when there is diffuse hyperesthesia—more properly speaking hyperalgesia—along the entire spine spots of maximum tenderness will be found. Having definitely determined—as gently as possible—that certain points are decidedly more sensitive than the surrounding area, they are lightly marked with a soft pencil and the examination is then directed elsewhere—chest, abdomen, extremities, etc. — for five or ten minutes. The same procedure of locating the painful places is then repeated. The examiner may begin at the top of the spine and slowly pass downward, or at the sacrum and upward, pressing the rubber pencil-tip at intervals of about one-half inch, or he may press in a "hit-and-miss" way all over the back, touching occasionally the points formerly tender and the area about them. Supposing that he starts from above, it will ordinarily be found that the tenderness (as did the selected spot in the normal individual) moves upward to meet the progressing pencil and will be found located three-fourths of an inch to two inches higher than before, while the point formerly tender will now be no more sensitive to pressure than its surrounding area. Occasionally the point will have moved further down, and by way of exception it may be found in the same place.

But even when this clinical fact has been demonstrated I find that physicians do not always at once grasp its full significance, although the conclusions are obvious. The tenderness could not be due to anything abnormal at the place of "irritation" (*i.e.*, the tender spot) else pressure the second time on the same spot would be just as painful as the first time and, furthermore, we cannot possibly suppose a pathological condition to have developed within the short space of five or ten minutes at the place to which the hyperalgesia shifted—*i.e.*, the second painful point. Bearing this in mind and remembering that the shifting corresponds just about to that in the healthy individual, it seems reasonable to conclude that it is due to the same cause—that is, the lack of absolute accuracy of the sensorium. In the pathological case, however, the shifting involves the sudden disappearance of pain from one place and its appearance in another. The inference then is inevitable that the pain on pressure is itself due to the perverted mechanism of sensory reception

and registration in the brain, or what is much more likely, to a perverted reaction of still higher centers—constituting a vicious consciousness. As a study of the particular psychic process involved would be trenching upon topics beyond the daily wants of the general practitioner, it shall not now concern us.

The dicta, not entirely without exception, which I wish to enunciate are:

1. In so-called spinal irritation there are tender points along the spine.

2. These points can be definitely located.

3. It can be shown that they absolutely change position within five or ten minutes.

4. Such shifting demonstrates that the disease, so far as the tender points are concerned, is entirely functional and located no lower than the cerebral cortex.

A few briefly noted illustrative cases may not be entirely superfluous.

Case 1.—Miss F——, aged 17, sent to me at the Northwestern University Medical School by Dr. Mann September 13, 1896. Seven months before, in lifting a sick woman, she had strained the back, and twenty-four hours later paralysis of the lower extremities had come on during the night, lasted one week, and disappeared in a night. Following this she developed general weakness, affecting more particularly the lower extremities, with pain, tenderness and weakness in the back, and had been informed that she had spinal disease. On examination an exceedingly tender spot was found to the right of the fifth dorsal vertebra, which in five minutes shifted an inch and a half lower. Treatment for hysteria caused rapid disappearance of all symptoms.

Case 2.—Mr. V. W——, aged 25, referred to me December 11, 1896, by Dr. Turck, had met with a slight railway accident two years before. Since then he had suffered from a number of disagreeable symptoms, referable particularly to the nervous system, among them being rigidity, pain, and tenderness in the back. One very tender spot was discovered in the right lumbar region, which at the end of ten minutes had shifted at least two inches. A very careful examination showed no evidence whatever of organic disease.

Case 3.—Miss B——, aged 36, whose father had recently died after a lingering illness, came to me very much alarmed about herself as her physician had told her that she was suffering from "spinal irritation" and had added a sufficiently vague and serious

explanation to make apprehensive even a person normally stable and phlegmatic. The lady had long been a neurasthenic and was not particularly alarmed by her old distressing symptoms, but the back trouble was comparatively recent and she had concluded that it was the beginning of the end. Several tender points were found and shifted in the way so typical of functional disease. Subsequent events have shown that my positive assurance as to the harmlessness of her ailment was wise and correct.

Case 4.—Mr. M——, aged 22, examined in Des Moines for Dr. Smouse in October, 1895. This was a somewhat atypical case of akinesia algera of three or four years standing, with no symptoms of organic disease. He had several tender points along the spinal column that showed the characteristic shifting. As the disease stated had come on gradually after a fall, and as pain, stiffness and acute distress in the back were prominent symptoms, it had been thought possible that a local injury of the spinal column or cord was the cause of all the symptoms. The further course of the case showed that the spinal symptoms were simply a part of the general neurosis.

Case 5.—Mr. R——, aged 54, examined for Dr. R. H. Babcock, November, 1895. He presented a sufficiently typical picture of true neurasthenia, and prominent among the symptoms were pain and tenderness along the spine. Several points tender on pressure were discovered, but these showed the characteristic shifting of functional disease.

Case 6.—Miss H——, aged 19, was sent to me at the Chicago Policlinic by Dr. Henrotin January 10, 1896. The case was an interesting one of hysterical anorexia, with marked emaciation, extreme insomnia, and hysterical convulsions. Constant backache and tenderness along the spine troubled her greatly, and this was frequently accompanied with marked spinal rigidity. There was tenderness all along both sides of the spine, but points of maximum tenderness could be demonstrated, and these showed the characteristic shifting. The result of further observation and treatment demonstrated conclusively that neither organic nor any other disease was present below the brain—the seat of hysteria.

Case 7.—Miss C——, aged 34, examined April 20, 1896. This was a traumatic case, the symptoms having come on after a street-car accident three years before. Examination showed several shifting, tender points along the spine. The case was evidently one of traumatic hysteria, and I discovered a hysterogenic zone on the vertex, pressure on which induced a typical hysterical attack. This point also shifted during the examination.

Case 8.—Mrs. R——, aged 35, seen September 2, 1896, in consultation with Dr. Hoelscher, had not been well since the birth of her last child nine years before, but had been particularly nervous the last year, having been confined to her bed most of the time. She had a multitude of nervous symptoms, prominent among them being extreme tenderness in the back and abdomen, which she herself referred to a "laceration" and an operation for hemorrhoids that had been performed some five years before. It was not difficult to demonstrate an extreme shiftiness of the tender points on the back and abdomen.

Case 9.—Mrs. Dr. X—— was brought to me by her husband April 1, 1897. Four months previously she had fallen from a step-ladder, striking upon the back and sustaining a slight bruise only. Since the accident she had spent most of the time in bed, and her husband discovered extreme tenderness in the mid-dorsal region. This, with her general weakness, a frequent feeling of numbness in the lower extremities, and aggravation of the symptoms whenever she tried to walk about, led him to suspect some grave injury to the spinal column or spinal cord. We found and definitely located three tender spots, one over the lower cervical spine, one over the lower dorsal spine, and one over the sacrum. All shifted at least an inch and a half on reexamination ten minutes later. Further examination and the subsequent course of events confirmed the conclusion that there was no trouble with the spinal cord or column.

Case 10.—As an exception to the rule I would mention the case of Miss G——, an instructor in the University of Chicago, who consulted me January 30, 1896. She was suffering from not very severe neurasthenia, but was much concerned about her condition, as a very prominent professor in one of our western medical schools had made a diagnosis of "spinal irritation." The tenderness along the spinal column in this case was so diffuse and so extreme throughout that no well marked shifting could be demonstrated. She recovered perfectly under rational treatment, one element of which was an absolute refusal on my part to further examine her spine.

As would naturally be expected the same rapid shifting of tender points may often be found in other parts of the body and may constitute a valuable aid in diagnosis between functional and organic disease. Two or three cases may be cited in illustration.

Case 11.—Miss B——, aged 18, of a neurotic family, came to the Chicago Policlinic quite recently complaining of a severe but

dull and constant ache in the right side, with frequent exacerbations of acute, stabbing pain. Renal and biliary calculus and indeed all organic disease having been excluded, I was inclined to regard the case as one of intercostal neuralgia, but examination of the seat of pain showed exquisitely tender points that rapidly shifted in location as much as four inches. I then concluded that the case was one of psychic pain, and obtained a history sufficiently characteristic of the development of such a neurosis, and the rapid disappearance of the pain under appropriate (largely suggestive) treatment proved the correctness of the diagnosis.

Case 12.—Mrs. M——, aged 27, of Spokane Falls. She had numerous nervous symptoms, and ovariotomy had been advised and strongly urged by several physicians as the only possible means of cure. Dr. E. C. Manierre, not finding gross lesions in the pelvis, discouraged operation, and sent her to me November 14, 1896. Vaginal examination revealed some tenderness at several places in the pelvis, but a little care showed conclusively that these points shifted the same as the tender spots in the back before described. A few months of general treatment accomplished a cure, and she was sent home well and anatomically intact.

Case 13.—Mrs. S——, aged 61, sent to me by Dr. Fütterer September 13, 1895. There were present chronic arthritis and senile changes in the knee-joints, with pain and tenderness of a functional character added. The latter was shown by the rapid shifting of well marked tender points over either joint. On the strength of this finding I assured her that some of the pain and soreness could be removed; and the results of treatment justified this assertion, although the permanent changes with their accompanying discomfort and disability remained unchanged.

In the following case the shifting spot was analgesic instead of hyperalgesic. The principle is the same.

Case 14.—Mrs. M——, sent to me by Dr. Alfred Hall, November 16, 1896. She complained particularly of headache, or rather of intense discomfort, sometimes associated with "loss of feeling," on top of the head. Examination revealed a small patch on the vertex where the pain sense was wanting, as pins could here be stuck in to the bone without causing any sensation whatever. Five minutes later this analgesic area had shifted considerably, which was to me proof positive that it did not depend on organic disease.

Before concluding I wish to call attention to the exceedingly bad effect that a proclaimed diagnosis of spinal irritation may have upon a nervous patient. He is already apprehensive, depressed,

inclined to fixed contemplation of his symptoms, and to be dominated by them. He may be convinced that he is the victim of some incurable disease, and "spinal irritation" gives him just such a vague and dreadful picture as will explain all his sufferings. It has more than once been my experience that the patient was much more troubled by the supposed existence of some indefinitely terrible condition that the term "spinal irritation" meant to him than he was by his various aches, pains, and distresses. Who can doubt that such a conviction of the presence of an incurable spinal malady, a conviction born of the ignorance and susceptibility of the patient and fostered by the ignorance of the physician, may prove an insurmountable barrier to recovery?

Finally, I beg to add with all possible emphasis: First, that the presence of tenderness of the back with shifting sensitive spots, although indicating a functional nervous affection located entirely in the cerebrum, does not in any way preclude the presence, in addition, of organic disease of the brain, spinal cord, or any other viscus; second, that the almost instantaneous disappearance of tenderness from one point and its simultaneous appearance at another is not of itself proof of simulation, malingering, or nervous nonsense on the part of the patient.

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HAROLD N. MOYER, M.D., EDITOR.

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